

U.S. Serial No. 10/820,373

Docket No. 4819-4701

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Testing method for designing a semiautogenous or an autogenous grinding circuit with at least one ball mill for grinding ore, the method comprising testing the ore by grinding the ore in two ~~separate~~ sequential testing steps using a single sample of ore.
2. (previously presented) Testing method according to claim 1, wherein the first testing step is a semiautogenous testing step for calculating the required grinding energy.
3. (previously presented) Testing method according to claim 1 wherein the second testing step is a Bond ball mill test to determine the ball mill energy for a predetermined particle size.
4. (previously presented) Testing method according to claim 2 wherein the semiautogenous testing step is carried out in a ball mill having a diameter to length ratio between 1:0.33 and 1:2.
5. (previously presented) Testing method according to claim 1 wherein the sample of ore to be tested is between 2 and 10 kg in weight.
6. (previously presented) Testing method of the claim 5, wherein the sample of ore to be tested is between 6 and 9 kg in weight.

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7. (previously presented) A testing method for designing a semiautogenous or an autogenous grinding circuit having at least one ball mill for grinding ore, the method comprising:

measuring an amount of time for grinding a predetermined mass of ore to a first predetermined size, in a first, semiautogenous step;

calculating a required grinding energy based on the measured time for grinding in the first step, mass of ore, mill characteristics and a measured specific gravity;

grinding in a ball mill, in a second step, the ore from the first step to a second predetermined size; and

calculating, using the Bond Mill Work Index, a required ball mill energy for the second step required to obtain a desired final grind size.